ing his body, may be mentioned, monuments similar to which may be found in all parts of the world. Thus originated the tomb, which includes not only the grave, or the sepulchre, but the monument or structure raised above it. The Greek word is τυμβος. Perhaps the best meaning is "a *monument* in which the dead are *inclosed*," so that in effect though not in appearance it is the same as "tomb-stone." — "Cenotaph," κενοτάφιον, from κενος, empty, and ταφη, a sepulchre, was formerly an empty sepulchre, raised in honour of those who had received burial elsewhere. It is now, if properly used, confined to that description of memorial, and should therefore have the same appearance as a tomb.

"Monument" is a word which has the most extensive signification; we hear of monuments of art, national monuments, monuments of events, and monuments of individuals. It strikes us that the use of the word, as applying to the two first, may require to be defended. "Monument," from the Latin *moneo*, to admonish, and *mens*, the mind, is literally a reminder—which calls something to recollection. In this light, every thing in nature is a monument, and works of art are monuments to us, though they were not always so intended by those who produced them. It would, perhaps, be too stringent to argue that "monument" should be the name of those works only which are intended to *commemorate*, yet this might best agree with the strict definition. The column in the city of London has been properly designated a monument, for it commemorates a remarkable event. The Nelson Column is also a monument. Monuments of individuals may be either of living persons, or of those who are dead; it is only the accidental circumstance of there being few monuments of the living, which prevents such works being popularly recognized as "monuments." The Duke of Wellington's Statue in the city has, we believe, never been called a "monument," whilst that which the committee are determined to put on the arch at Hyde Park Corner—though a most remarkable monument for some people, is styled a "testimonial." The equestrian statues of George the Third and George the Fourth are seldom designated "monuments," in which, according to the intent and meaning of the term, they are included. Of monuments of the dead, some, like that in Trafalgar-square, are apart from the grave; and others, like the Nelson Monument in St. Paul's, are near to or over it. Monuments of the dead include *cenotaphs*; but do not always, or necessarily include *tombs*; the former can hardly be any thing but commemorative, whilst the latter may merely mark a spot, have no inscription, being nothing more than the completion of the grave. Monuments of the dead may be either statues, or groups, images of the deceased, or, like the sculptured lion which commemorates the Swiss guards, may have some allegorical meaning. They may be miles distant from the grave, like most of those in St. Paul's Cathedral; they may be erected apart from a sacred edifice, or, according to modern custom, they can be raised within it. We say according to modern custom, for we are not certain that the Gothic tombs are properly to be designated "monuments." They were, at least, erected for a higher purpose than that of modern monuments, which are quite unconnected with religious objects. The first are monuments of virtuous men, or benefactors, not what we have now got to understand by the word "monument." A monument is generally described as erected *to* an individual; "monument *of*" would be understood to mean a *statue*. Yet we do not erect a monument as a sacrifice, or an offering to the dead, but rather, what the name imports, in commemoration. "Monument to" is therefore incorrect, and the other preposition should be used instead, but without limiting it to a sense to which it is not confined. To describe the form or kind of commemorative work, "monument" is inadequate; it should be reserved as a general term.

"Mausoleum" is a word which has become less fixed in an English meaning than any we have mentioned. It is sometimes understood to mean a building, erected to contain the statues of deceased individuals, or else it is a sepulchral building. There is, therefore, the important distinction of its requiring consecration in the latter case, but not in the former. As it is a term derived from the celebrated building erected in memory of Mausolus, King of Caria, by his wife Artemisia, which was enriched with sculpture, and lavishly embellished, and which is generally considered to have been the place of sepulture, the term should be confined within those limits. It is therefore a magnificent tomb, but is generally built for the interment of several persons.

We have now only to remark, that the word "vaults" is a curious instance of the state in which the nomenclature of the art is at present. A vault, as we need hardly say, is a continuous arch, and from the circumstance that the crypts of churches are "vaulted," and used for burials, any receptacle for the dead which may be below ground, and walled in, has been considered as a vault. It might be thought that we were merely wasting the reader's time in drawing attention to an instance, which many would hold to be insignificant. But it is in this manner, that difficulty is placed in the way of the young student, who, instead of finding the nomenclature a help, as he would in the science of chemistry, can do nothing but regret the constant difficulties and impediments, which the use of one word with several different meanings is constantly placing in his way. We may not get the advantage of a nomenclature equal to that of chemistry, but we may in many cases do much to prevent that of the art becoming worse than it is. One of the first and best endeavours would be the disuse of many of the workmen's terms, which can be better supplied by those in use amongst educated architects, and the assimilation of all terms in construction to those of the metropolis. E. H.

WATER—HOUSE-SUPPLY—DRAINAGE.*

Rain-water being so valuable in a domestic establishment, from its softness, none of it should on any account be lost, and the receptacle provided for it should therefore be so situated, as to collect the drainage from the lowest as well as the highest roofs. Spring-water, on the other hand, being usually the most plentiful, should be forced up into a cistern, at a height sufficient to supply the highest water-closets; that by its use in this and similar ways, the soft-water may be saved for more important purposes. For rain-water, the best reservoir seems the underground tank; in the ground, scope is afforded for forming a much larger receptacle than could with convenience or sightliness be constructed above it, and the strength necessary to render its sides adequate to the pressure within is more easily obtained, the water, likewise, is kept at a more equable temperature. To give this arrangement full effect, there should be a well some feet deeper, sunk to receive the water from the tank in a state ready for use; the communication drain extending underneath the latter as far as its centre to receive the water as it percolates from the filter. The latter should be a small enclosure built with bricks, the bottom formed by a large perforated tile, situated immediately over the drain and supporting the filtering strata in the order we have before described.

The tank is most suitably situated in the centre of Kitchen-court; it is best of an oblong form, built of hard-burnt bricks in Roman cement, stoutly arched over, and with a man-hole in the centre, covered by a stone flag with lifting ring, flush with the paving or gravel; the bottom should consist of an inverted arch, both for strength and convenience in cleansing. The level at which the influx drains terminate at it will be regulated by the fall from the down-pipes; this, for water, need not exceed the rate of 1 in 100, or say one-eighth of an inch in the foot; but as their terminations should assimilate, so that they may all enter at one level in the upper part of the tank, the fall of the longest drain should regulate all the others: at the same time it will determine the level for building the tank; and upon these circumstances it will also depend whether the stone covering to the man-hole is placed immediately on the open-lag, or the latter has to be continued upward with a shaft to receive it. The overflow drain should be situated a little lower than the influx drains, and should be trapped somewhere in its length to prevent the approach of small animals to the tank. The well, like the tank, should be built with Roman cement. We have generally placed it under the scullery window, extending rather more in than out, the wall arching over it below the ground line, and the mouth covered with a slab of flagstone, having a hole in it for the pipe of a small lift-pump above in scullery. It should be remembered, that drains of curvilineer section, especially in the bottom, are much superior to square ones for promoting the flow of water through them; and that, as in pipes, the more equal and uninterrupted their diameter, the more easy their sweeps, the more free from asperities their interior, and the better they are filled, the less will their discharge be retarded.

To revert to the uses of spring water: the force-pump for raising this to the high-service cistern before mentioned, should be situated on the ground story of offices—say in scullery—near the lift-pump of soft-water well, and should have a tap at that level, for affording a supply for kitchen uses, if it is preferred; the main or rising service-pipe should be accompanied, side by side, by a small warning-pipe, open at bottom, to give notice when the cistern above is full; and an overflow-pipe, of sufficient capacity, should lead the surplus water into the nearest soil-pipe, so long as the pump continues its supply after the cistern is filled to its maximum height.

We would here advert, though it may perhaps be considered somewhat foreign to the subject in hand, to the waste of liquid manure—perhaps the most valuable of all—which is involved in the usual system of draining. We have, by the arrangements already indicated, provided for rendering available, with the utmost advantage, the rain-water collected from the roofs; and also that the water-closets should be supplied only with hard water; now we would suggest that the overflows from cesspools should not be made mere channels of waste, but should be led to a capacious well, for the use of the gardener. It is well known that rain-water is far better than spring-water for promoting the growth of plants; this is from the former containing that which is a necessary ingredient in their formation—namely, ammonia; and which is abundant in liquid manure. The efficacy of this may be soon developed, by sprinkling one half of a grass-plot with spring-water, and the other half with water in which pounded carbonate of ammonia (about one ounce to the gallon) has been dissolved; the former will keep it alive, but the latter will give it vigour and luxuriance.

The *rain-gauge* is an instrument of simple construction, consisting merely of a vessel to contain the water, with a funnel-mouthed pipe to receive and conduct it in, and a scale by which to estimate its quantity; perhaps the best plan would be to make the width of the vessel four inches by three, or twelve square inches, and divide its depth into twelfths of an inch; thus no separate scale would be necessary, and every twelfth in depth would count one inch cube; if the twelfths were further subdivided into tenths, the quantity would then be given in inches and tenths of an inch. A method has been contrived for keeping the funnel mouth at right angles to the falling rain. A large vane acted on by the wind causes the gauge to turn round on a pivot, so as to allow the funnel, by means of another vane which is attached to it, to incline over according to the strength of the wind, so that its mouth shall face the rain as it falls. The following is stated to be the annual fall of rain at different places in Great Britain and elsewhere.

	Inches.
Bombay	82
Calcutta	81
Vera Cruz	63·8
Plymouth	44
Lancaster	39·714
Rome	39
Dover	37·52
Dumfries	36·919
Manchester	36·140
Liverpool	34·119
Chatsworth	27·664
Edinburgh	24·5
London	23·10
Glasgow	21·331
Paris	19·9
Petersburgh	17·5
Ulleaborg	13·5

For preserving water from corruption for a long period, or indeed for any length of time, there seems to be nothing equal to charcoal. This appears to be owing to its peculiar property of absorbing the gases and putrid particles immediately they are formed, and thus

* Continued from page 314, *ante*.